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Examiner: Fastovsky, Leonid M.
Art Unit: 3742

REMARKS

Claims 1-9 and 11-30 remain in the application. By this amendment claim 1 has been amended, and claim 10 has been cancelled. In addition the specification has been amendment to list the correct filing date of the provisional application from which the present application claims priority. The present application as originally filed supports this amendment. No new matter has been added.

Claim Rejections Based on Moldenhauser

Claims 1-2, 4, 6-9, 22-23 and 26-28 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 3,394,257 to Moldenhauser. Applicant respectfully traverses this rejection.

Independent claim 1, from which claims 2, 4, 6-9, 22-23 and 26-28 depend, has been currently amended to more clearly define the present invention. Claim 1 recites a radiation source including, in combination, a base, a curved reflector, at least two pins passing through the base, within the reflector, and along an axis of the reflector, and a filament helically wound about the pins and having a high emissivity outwardly facing surface and opposing ends electrically connected to a respective one of the pins so that upon passage of electrical energy through the filament, the filament becomes electrically heated and emits infrared radiation. In addition, the helically wound filament has a diameter that decreases along the axis and away from the base.

Moldenhauser does not disclose or suggest a radiation source including a helically wound filament having a diameter that decreases along an axis and away from a base of the source. Moldenhauser, therefore, does not anticipate or make obvious a radiation source, as recited in claims 1-2, 4, 6-9, 22-23 and 26-28 of the present application.

Applicant respectfully submits that independent claim 1 as currently amended is not

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anticipated or made obvious by Moldenhauser, and requests reconsideration and withdrawal of the rejection of claims 1-2, 4, 6-9, 22-23 and 26-28 under 35 U.S.C. 102(e) as being anticipated by Moldenhauser.

Claim Rejections – 35 U.S.C. § 103

Claims 3, 5, 11-21, 24, 25, 29 and 30 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauser alone, or in view of additional references. Applicant respectfully traverses these rejections and requests reconsideration and withdrawal of these rejections for the reasons discussed below.

Claims 5 and 14-21

Claims 5 and 14-21 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauser in view of Boland et al. (5,438,233) and further in view of George et al. (2002/0096492). Applicant respectfully traverses this rejection.

Claims 5 and 14-21 depend from claim 1. As discussed above, independent claim 1 as is not anticipated or made obvious by Moldenhauser since Moldenhauser does not disclose a radiation source including a helically wound filament having a diameter that decreases along an axis and away from a base of the source.

Neither Boland et al. nor George et al., whether considered alone or in combination with each other or in combination with Moldenhauser, disclose a radiation source including a helically wound filament having a diameter that decreases along an axis and away from a base of the source. Independent claim 1, therefore, also is not anticipated or made obvious by Moldenhauser, Boland et al. or George et al., whether considered alone or in combination. Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 5 and 14-21 under 35 U.S.C. 103(a) over Moldenhauser in view of Boland et al. and further in view of

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George et al.

Claims 11 and 25

Claims 11 and 25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauser in view of Wompey (3,077,531). The patent office submits that Moldenhauser teaches all of the elements of claims 11 and 25 except for a diameter of the filament varying and monotonically decreasing about the axis, but that Wompey discloses these additional elements. Applicant respectfully traverses this rejection.

Claims 11 and 25 depend from claim 1. Wompey, whether considered alone or in combination with Moldenhauser, does not disclose or suggest a radiation source including a helically wound filament having a diameter that decreases along an axis and away from a base of the source. Instead, Wompey discloses electrical heater including a helically wound filament 30 having a diameter that *increases* along an axis and away from a base 40 of the heater. If anything, Wompey teaches away from the decreasing diameter of the helically wound filament of the present invention.

Independent claim 1, therefore, is not anticipated or made obvious by Moldenhauser and Wompey, whether considered alone or in combination. Since claims 11 and 25 depend from independent claim 1, they include the limitations of the independent claim and also are not anticipated or made obvious by Moldenhauser and/or Wompey. Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 11 and 25 under 35 U.S.C. 103(a) as being unpatentable over Moldenhauser in view of Wompey.

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Claims 24 and 30

Claims 24 and 30 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauser in view of Karlsson (6,034,360). The patent office submits that Moldenhauser teaches all of the elements of claims 24 and 30 except for the filament and pin materials, but that Karlsson discloses these additional elements. Applicant respectfully traverses this rejection.

Claims 24 and 30 depend from claim 1. Karlsson, whether considered alone or in combination with Moldenhauser, does not disclose or suggest a radiation source including a helically wound filament having a diameter that decreases along an axis and away from a base of the source. Independent claim 1, therefore, is not anticipated or made obvious by Karlsson alone or in combination with Moldenhauser. Since claims 24 and 30 depend from independent claim 1, they include the limitations of the independent claim and also are not anticipated or made obvious by Moldenhauser and Karlsson. Applicant, therefore, respectfully requests reconsideration and withdrawal of the rejection of claims 24 and 30 under 35 U.S.C. 103(a) over Moldenhauser in view of Karlsson.

Claims 3, 12-13 and 29

Claims 3, 12-13 and 29 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauser. The patent office submits that Moldenhauser teaches all of the elements of claims 3, 12-13 and 29 except for an elliptical reflector comprising non-ferrous material, and being coated or plated, and that the second pin includes second and third portions, but that these additional elements are obvious in light of Moldenhauser. Applicant respectfully traverses this rejection.

Claims 3, 12-13 and 29 depend from independent claim 1, which is not anticipated or made obvious by Moldenhauser. Since claims 3, 12-13 and 29 depend from independent claim

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1, they include the limitations of the independent claim and also are not anticipated or made obvious by Moldenhauser. Applicant, therefore, respectfully requests reconsideration and withdrawal of the rejection of claims 3, 12-13 and 29 under 35 U.S.C. 103(a) as being unpatentable over Moldenhauser.

Drawings

The drawings have been objected to as being informal. In response, applicant is submitting herewith formal drawings.

Conclusion

In view of the amendments and remarks submitted herein, applicant believes that all claims pending in the application are in condition for allowance and respectfully request such allowance. If a telephone conference will expedite prosecution of the application the Examiner is invited to telephone the undersigned.

No fee is believed to be required; however, if a fee is required, or otherwise necessary to cover any deficiency in fees already paid, authorization is hereby given to charge our deposit account no. 50-1133.

Respectfully submitted,

McDermott, Will & Emery

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